



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/678,380	10/03/2003	Wolf-Dietrich Weber	2998P034	3501

8791 7590 01/04/2007
BLAKELY SOKOLOFF TAYLOR & ZAFMAN
12400 WILSHIRE BOULEVARD
SEVENTH FLOOR
LOS ANGELES, CA 90025-1030

EXAMINER

PHAN, RAYMOND NGAN

ART UNIT	PAPER NUMBER
----------	--------------

2111

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/04/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/678,380	Applicant(s) WEBER ET AL.	
	Examiner Raymond Phan	Art Unit 2111	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-17 is/are allowed.
- 6) ☒ Claim(s) 1-5, 7, 8, 18, 20 and 22-25 is/are rejected.
- 7) ☒ Claim(s) 6, 9, 10, 19 and 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>09182006</u> . | 6) <input type="checkbox"/> Other: _____ |

Part III DETAILED ACTION

Notice to Applicant(s)

1. This action is responsive to the following communications: amendment filed on September 22, 2006.
2. This application has been examined. Claims 1-25 are pending.

Specification

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-5, 7-8, 18, 20, 22-25 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Sinha (US No. 6,738,839) in view of Drerup et al. (US No. 6,973,520).

In regard to claims 1, 7, 18, 20, 22, 25, Sinha discloses a method of arbitrating multiple requests from multiple processors (i.e. 12s), comprising: identifying one or more initiating processors that present a request or transaction on a first cycle (see figure 3, col. 6, lines 1-10); filtering out presented transactions from the arbitration process destined to target resources that are currently not available to service a transaction (i.e. link have activity in progress) (see col. 4, lines 12-31); implementing an arbitration process among the remaining presented transactions to select a presented transaction from an initiating processor to an available target resource that wins the arbitration (see col. 4, lines 20-31);

configuring the pathway in an interconnection to establish a connection between the request initiator and the available target that won the arbitration (see col. 4, lines 32-45). But Sinha does not specifically disclose the step of configuring segments of the pathways in an interconnect in the next cycle to establish a connection between the initiating network resource and the available target network resource that won the arbitration. However Drerup et al. disclose configuring segments of the pathways in an interconnect in the next cycle to establish a connection between the initiating node and the available target node that won the arbitration (see col. 9, lines 26-55). Therefore, it would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have combined the teachings of Drerup et al. within the system of Sinha because it would reduce the repeated requests and improve the bus bandwidth.

In regard to claims 2, 8, Sinha further discloses: determining a destination associated with a target for each presented transaction (see col. 4, lines 32-45).

In regard to claims 3, Sinha further discloses: cross-referencing the presented transactions from the one or more initiating network resources with target network resources that are currently not available to service a transaction (see col. 4, lines 32-45).

In regard to claim 4, Sinha further discloses: sending control signals to switch to configure segmentation of the pathways in the interconnect so that the control flip flops store the control information resulting from the arbitration process (see col. 6, lines 11-47).

In regard to claim 23, Sinha discloses a processor as an initiator (see figure 3).

In regard to claim 24, even though Sinha or Drerup et al. do not specifically disclose a machine-readable medium having stored thereon information presenting the apparatus of claim 18 however one skilled in the art would have understood that they can choose to have software or program to fulfill their design.

Allowable Subject Matter

6. Claims 11-17 are allowable over the prior of records.
7. Claims 5-6, 9-10, 19, 21, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
8. The following is an Examiner's statement of reasons for the indication of allowable subject matter: Claim 11 is allowable over the prior art of record because the prior arts, cited its entirety or in combination any of the prior art, did not teach a first stage of circuitry to receive incoming transactions from the plurality of initiators and to route an incoming payload of information to a central point; a second stage of circuitry to pass outgoing transactions to the plurality of target connecting to the interconnect and to route the payload of information from the central point.

The remaining claims 12-17 are allowed the same rationale as set forth their parent claim.

The reason for allowance of claims 5, 6, 9, 21 can be found in the previous Office Acton.

Response to Amendment

9. Applicant's amendment and arguments, see pages 3-14, filed on September 22, 2006, with respect to the rejections of claims 1-5, 7-8, 18, 20, 22-25 under

35USC103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Sinha and Drerup et al.

Conclusion

10. Claims 1-5, 7-8, 18, 20, 22-25 are rejected. Claims 6, 9-10, 19, 21 are objected. Claims 11-17 are allowed.

11. The prior arts made of record and not relied upon are considered pertinent to applicant's disclosure.

Phelps et al. (US No. 7,054,969) disclose an apparatus for use in a computer system.

MacEachern et al. (US No. 6,848,017) disclose a method and apparatus for determining connections in a crossbar switch.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Raymond Phan, whose telephone number is (571) 272-3630. The examiner can normally be reached on Monday-Friday from 6:30AM- 4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached on (571) 272-3632 or via e-mail addressed to mark.rinehart@uspto.gov. The fax phone number for this Group is (571) 273-8300.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [raymond.phan@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 central telephone number is (571) 272-2100.

Raymond Phan
December 12, 2006

